**A Comparison Study on five estimation methods for Power Shanker Distribution**

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| **Abstract**  Power Shanker distribution is suggested by Shanker and Shukla [1]. Shanker and Shukla [1] discussed some distributional properties of the Power Shanker distribution. However, there is no comparison study regarding the another estimators of the parameter of the Power Shanker distribution in the literature. Therefore, we provide a new expansion for point estimation of the Power Shanker distribution in this study. This study presents five different methods of estimation, such as maximum likelihood, least-squares, weighted least-squares, Anderson-Darling, and Crámer–von-Mises methods to estimate the parameters of the Power Shanker distribution. It is compared the performances of these estimators via a extensive Monte Carlo simulation study. In the simulation study,5000 repetitions have taken at different sample sizes and parameter settings. We compute average bias and mean square error (MSE) of the parameters of the Power Shanker distribution. It is seen that the average bias and MSE decrease when the sample sizes increase as expected according to the simulation results. Thus, it can be concluded that the estimators provide the procedures of the estimation. |
| Keywords: Shanker distribution, Power Shanker distribution, Point Estimation, Monte Carlo simulation |

**References**

1. Shanker, R., Shukla, K. K. (2017). Power Shanker distribution and its Application. *Türkiye Klinikleri Biyoistatistik*, *9*(3), 175-187.